

PX 456

Message

From: Breanne Madigan [REDACTED]
Sent: 11/12/2019 11:29:49 AM
To: [REDACTED]@ripple.com]
Subject: Fwd: Follow-up
Attachments: Natural Liquidity Task Force - Proposal.pdf; Insti Markets - Strategy and Resourcing.pdf; ODL and ODL liquidity - BD_Prod_Insti Mkts.pdf; Bi-directional Flow v2.pdf

Redacted-Privilege

----- Forwarded message -----

From: Ron Will <[REDACTED]@ripple.com>
Date: Tue, Nov 12, 2019 at 1:31 PM
Subject: Follow-up
To: [REDACTED]@ripple.com>
Cc: Breanne Madigan [REDACTED]@ripple.com>

[REDACTED]

Attached are several presentations that might be helpful - 2 on what her team does and how it interfaces with other teams and 2 on natural liquidity.

Please let Breanne and I know any questions

Best,
Ron

--
Ron Will
Chief Financial Officer | Ripple
[REDACTED]@ripple.com | ripple.com


--
Breanne Madigan
Global Institutional Markets
[REDACTED]@ripple.com



Bi-Directional Flow

Hypothesis and Plan for Testing

October, 2019



HIGHLY CONFIDENTIAL

INTERNAL

1

RPLI_SEC 0982752

Agenda

1. Executive Summary
2. Background
3. The Problem
4. Natural Liquidity
5. The Solution
6. Predictions
7. The Ask
8. Appendix



HIGHLY CONFIDENTIAL

INTERNAL

2

RPLI_SEC 0982753

Executive Summary

- Ripple subsidizes liquidity for nearly the full notional size of ODL volume, which is expensive and unsustainable
- Subsidies are necessary to support ODL volumes, because one sided flows are not profitable for MMs
- Subsidies were expected and modeled for (markets / finance) but developing natural liquidity is an area of focus to reduce % subsidy over time as
- Natural liquidity is defined as unsubsidized order book liquidity that is capable of supporting trading activity
- **No supporting data exists for how long it will take for natural liquidity to develop to the level needed to support ODL at scale because this has never been done before.**
- The markets team would like to test adding bi-directional flow as a method to help spur natural liquidity
- **Hypothesis:** Bi-directional flow should have an outsized impact in the growth of natural liquidity as it should create **efficiencies to help make markets**
- [REDACTED] is a payments platform looking to join RippleNet in order to send payments from MXN to USD, and would be a strong test case to see if bi-directional flows increase natural liquidity.



HIGHLY CONFIDENTIAL

CONFIDENTIAL

3

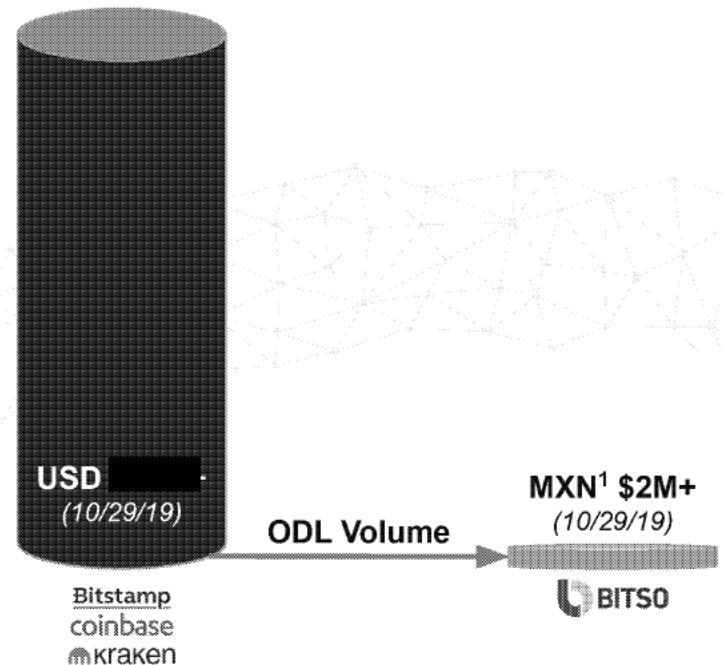
RPLI_SEC 0982754

Background: XRP Open Order Books and ODL Flows

On-Demand Liquidity leverages the **open order book liquidity** of an exchange to facilitate payments

ODL partner exchanges can have **lower natural supply and demand for XRP (liquidity) relative to ODL volume** and sometimes **large differences in liquidity** between source and destination exchanges.

As a result, Ripple has to subsidize the liquidity for the **nearly the full notional size of ODL volume** in a given period (regardless of the average transaction value) **by paying MMs**



¹ MXN volume represented in USD equivalent

HIGHLY CONFIDENTIAL

INTERNAL

4

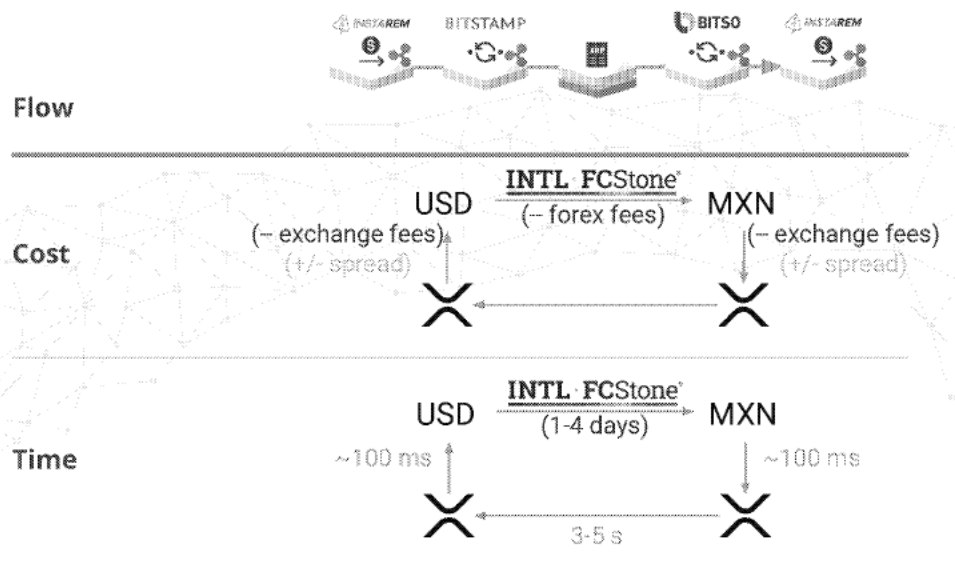
RPLI_SEC 0982755

Background: Why Does Ripple Need to Pay MMs to Support ODL?

MMs have no incentive to support ODL flows without a subsidy because supporting one sided flows is not profitable

One sided flows subject MMs to the same **frictions** Ripple is trying to solve for (time + cost)

The majority of the **capital** Ripple provides market makers is **idle/in-flight**



HIGHLY CONFIDENTIAL

INTERNAL

5

RPLI_SEC 0982756

The Problem: Paying MMs to Facilitate ODL Flows is Unsustainable

MM incentives are really expensive!

- Total MM fees are projected to exceed [REDACTED] and total lease / loan amounts are expected to exceed [REDACTED] through June 2020 (using conservative natural liquidity growth estimates)
- These costs **were expected and modeled for** (markets / finance), as our MMs were tasked with providing liquidity where it did not exist before
- While the high cost of supporting ODL through MM incentives was anticipated, it is significant - the next area of focus is developing natural liquidity to reduce % subsidy over time.

Ripple will need to continue MM incentives until natural liquidity takes hold

- Although Ripple has forecasted MM incentives for various bull/bear case scenarios, we have budgeted for the more conservative (i.e. expensive) outcome assuming NL takes time to develop
- We have identified a number of levers to enhance **natural liquidity**
- Testing will begin in November



HIGHLY CONFIDENTIAL

INTERNAL

6

RPLI_SEC 0982757

Natural Liquidity: What is It? And How Does it Develop?

Natural Liquidity is unsubsidized order book liquidity that is capable of supporting the trading activity taking place on the venue in question

A market with natural liquidity is characterized by

- Balanced active buying and selling demand
- Tight spreads with few mispricings that lead to arbitrage opportunities
- Ample order book depth to enter and exit positions

ODL disrupts and overwhelms this natural liquidity on low-volume venues, skewing the buying and selling demand and overwhelming the order book liquidity.

Natural liquidity develops when new players notice the opportunity inherent in price-agnostic flows and they join the venue to monetize that opportunity.

No supporting data exists for how long it will take for natural liquidity to develop to the level needed to support ODL at scale because this has never been done before.

INTERNAL

7

HIGHLY CONFIDENTIAL

RPLI_SEC 0982758

One Solution: Boosting Liquidity with Bi-Directional Flow

Increased bi-directional flow to boost natural liquidity is one of the main hypotheses the markets team feels is necessary to test

As ODL payments are spread-crossing orders that interact with resting orders on an exchange, Bi-directional flow should **allow a market participant to capture spreads** on the exchange

What is the Impact?

- **Reduce MMs costs in turn reducing Ripple's subsidies** by reducing the amount of wire transfer fees, forex fees, spread costs
- **Reduce the reliance on XRP leases and USD loans** by creating an environment where MMs can instantly convert currencies on exchange instead of going through forex brokers outside the system and wiring money back in.



HIGHLY CONFIDENTIAL

INTERNAL

8

RPLI_SEC 0982759

Predictions: Bi-Directional Flow Should Have an Outsized Importance to the Growth of Natural Liquidity

Assume that Natural Liquidity growth occurs in proportion to the profit that a trader can expect to make.

Under this assumption, here is a theoretical accounting of the lifecycle of a trade facilitating one-directional flow compared to two-directional flow.

With the profitability difference shown, we should **expect that Natural Liquidity will grow an order of magnitude more quickly.**

	One-Directional MXN Flow	Two-Directional MXN Flow
Spread Captured	+ 45 bps	+ 45 bps
Trading Fee (Bitso)	- 5 bps	- 5 bps
Spread Paid (Bitstamp)	- 3-4 bps	- 0 bps
Trading Fee (Bitstamp)	- 5 bps	- 0 bps
FX Broker Fee	- 30 bps	- 0 bps
Total Profit	1-2 bps	40 bps

INTERNAL

9

HIGHLY CONFIDENTIAL

RPLI_SEC 0982760

The Ask: Onboard dLocal as Test Case

Who is [REDACTED]? - [REDACTED] is a 360 payments platform for EM looking to join RippleNet in order to send payments from MXN to USD

Why [REDACTED]? [REDACTED] is the perfect candidate to allow us to test the benefits of bidirectional flow in the USD/MEX corridor. They currently execute ~\$8M/month MXN/USD and may be willing to modify their flow to fit Ripple test parameters.

What are the hurdles?

- MXN to USD is not a corridor on the RoadMap
- [REDACTED]'s number of transactions is low - only 50 per month

Why do they deserve an exception?

- This is a timely and unique opportunity to test bidirectional flow
- The universe of customers that send payments from MXN to USD is limited
- [REDACTED] is eager to join RippleNet



HIGHLY CONFIDENTIAL

INTERNAL

10

RPLI_SEC 0982761

APPENDIX

- Projected Costs for MM Incentive program
- Cost Breakdown for ODL September



HIGHLY CONFIDENTIAL

CONFIDENTIAL

11

RPLI_SEC 0982762

Projected Costs for MM Incentive Program

- Ripple has to pay market makers a **fixed fee per month** per corridor as well as a **volume based fee**
- Ripple** also **provides working capital** to our market makers, with a large effect on our balance sheet: estimated [REDACTED] in leases / loans through June 2020 with just [REDACTED] corridors averaging less [REDACTED] per day per corridor, assuming natural liquidity does not grow

Corridors	Avg. Flow per Corridor	% of volume by	Market Making Fee	Total loan amount	loan amount in cash	Cash outflow	XRP outflow	
November	3	\$847,177	85%		\$6,929,812	\$5,543,850	\$2,429,246	\$1,601,911
December	3	\$1,315,017	85%		\$10,756,697	\$8,605,358	\$3,061,508	\$2,060,737
January	5	\$1,341,963	85%		\$18,295,186	\$14,636,148	\$6,030,791	\$3,537,168
February	5	\$1,932,809	85%		\$26,350,272	\$21,080,218	\$6,444,069	\$4,273,549
March	5	\$2,003,490	85%		\$27,313,874	\$21,851,099	\$770,882	\$2,930,983
April	5	\$2,104,892	85%		\$28,696,314	\$22,957,051	\$1,105,952	\$3,123,399
May	5	\$2,245,190	85%		\$30,609,015	\$24,487,212	\$1,530,161	\$3,379,773
June	5	\$2,463,990	85%		\$33,591,940	\$26,873,552	\$2,386,340	\$3,828,250



HIGHLY CONFIDENTIAL

INTERNAL

12

RPLI_SEC 0982763

Cost Breakdown for ODL for September

- In September, ODL payments totalled \$ [REDACTED]
- To support this volume, Ripple paid [REDACTED] in market maker fees ([REDACTED])
- To support this volume, Ripple provided \$2.5M in working capital to market makers [REDACTED]
- There were [REDACTED] in FX differences covered
- There are also payment partner incentives and exchange incentives



HIGHLY CONFIDENTIAL

INTERNAL

13

RPLI_SEC 0982764